

HIGHLY ERODIBLE LIST

General

The basis for identifying highly erodible land is the erodibility index of a soil map unit. The erodibility index of a soil is determined by dividing the potential erodibility for each soil by the soil loss tolerance (*T*) value established for the soil. The *T* value represents the maximum annual rate of soil erosion that could take place without causing a decline in long-term productivity. A soil map unit with an erodibility index of 8 or more is a highly erodible soil map unit.

Water Erosion

Potential erodibility for sheet and rill erosion is estimated by multiplying the following factors of the Universal Soil Loss Equation (*USLE*):

1. Rainfall and runoff factor (*R*)
2. Susceptibility of the soil to water erosion (*K*)
3. Combined effects of slope length and steepness (*LS*)

The erodibility index for sheet and rill erosion is represented by the formula $RKLS/T$. A soil map unit is highly erodible if the *LS* factor for the shortest length and minimum percent of slope is used and the $RKLS/T$ value equals or exceeds 8.

A soil map unit is potentially highly erodible if: (1) the $RKLS/T$ value using the minimum *LS* factor is less than 8; and (2) the $RKLS/T$ value using the maximum *LS* factor is equal to or greater than 8.

Wind Erosion

Potential erodibility from wind erosion is estimated by multiplying the following factors of the Wind Erosion Equation (*WEQ*).

1. Climatic characterization of windspeed and surface soil moisture (*C*)
2. The susceptibility of the soil to wind erosion (*I*)

The erodibility index for wind erosion is represented by the formula CI/T . A soil map unit is highly erodible if the CI/T value equals or exceeds 8.

Explanation of codes used in the Highly Erodible Lands Report

<u>Code:</u>	<u>Description:</u>
3	Soil does not meet the requirements for Highly Erodible Lands.
2	Range of soil characteristics for the soil as mapped, fall within and outside of the requirements for Highly Erodible Lands.
1	Soil meets the requirements for Highly Erodible Lands.